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TITLE: VIBRATION ISOLATOR FOR HANDY POWER TOOL
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ABSTRACT:

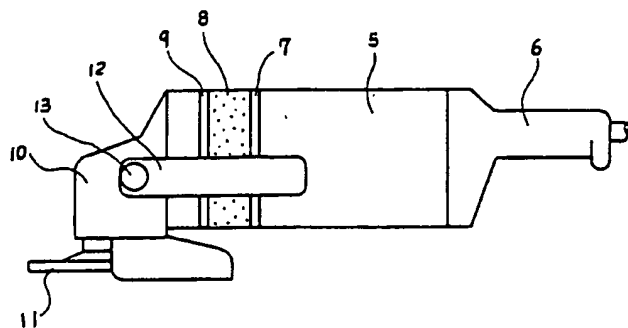
PURPOSE: To obtain a vibration isolator for a disc grinder or the like while is excellent in manipulatability, by coupling a drive section to which a grindstone or the like is attached, with a motor section, and by coupling the drive shafts with each other by means of a universal joint.

CONSTITUTION: A motor section 5 to which a handle section 6 is secured is fixed by means of screws to a drive section 10 through the intermediary of a resilient member 8 to which stationary plates 7, 9 are bonded. Further, the drive shaft 14 of the motor section 5 is coupled with the drive shaft 19 of the drive section 10 through the intermediary of a key joint 17 by means

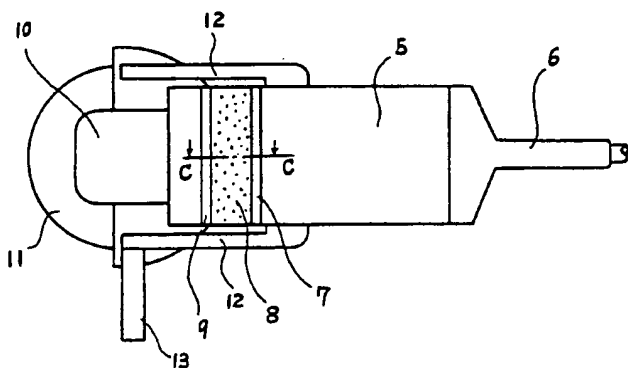
of two cross joints 16, 18. Thus, the mass M_{2} of the handle section becomes larger, the mass M_{2} being such as $M_{2} \approx M_{1}$ where M_{1} is the mass of the grindstone, and therefore, M' in the following equation: $M' = M_{1} \cdot M_{2} / (M_{1} + M_{2})$, becomes larger. Accordingly, the inherent frequency W' in the following equation: $W' = (K/M')^{1/2}$, may be made lower even if the spring constant K is made larger. That is, even if the one having a high hardness or a large spring constant K is used as a resilient member, vibration damping may be made satisfactory and the manipulatability may be also made satisfactory. Further, due to the provision of the universal joint no problem is caused in the operation of the drive section even if the resilient member 8 is deformed.

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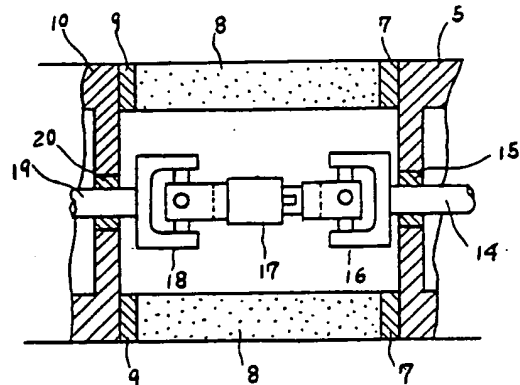
第1図



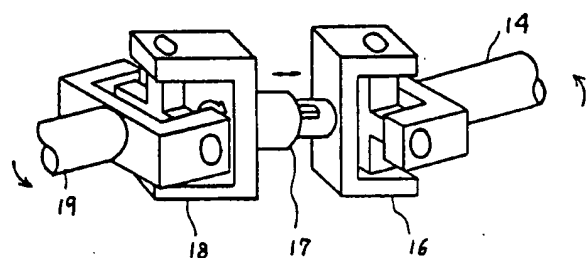
第2図



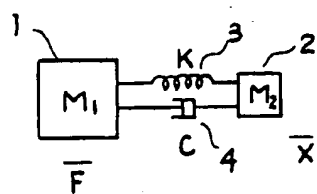
第3図



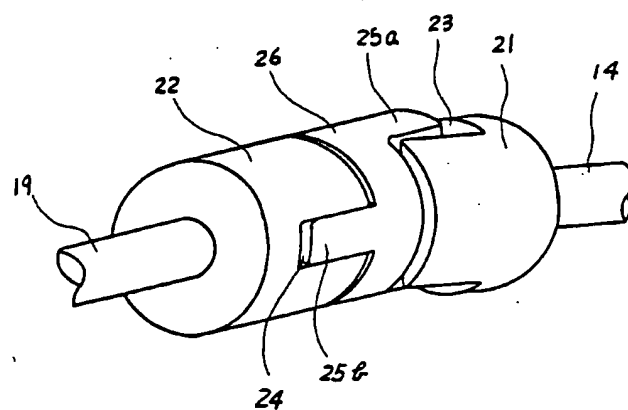
第4図



第5図



第7図



第6図

